

G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME-----> ISOPROPYL ACETATE

PRODUCT NUMBERS-----> 183100, 183110 and 183130,

CHEMICAL NAME OR SYNONYMS> Acetic acid, 1-methylethyl ester, Isopropyl ethanoate, 2-Propyl ethanoate, 2-Propyl acetate, 2-Acetoxypropane

CAS-NO: 108-21-4

CHEMICAL FAMILY: Ester

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

RECOMMENDED USE: Manufacture of substances. Laboratory chemicals.

USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: G.J. CHEMICAL CO., INC.

**Address: 40 VERONICA AVENUE
SOMERSET, NJ 08873**

Telephone: 1-973-589-1450

Fax: 1-973-589-3072

1.4 Emergency Telephone Number

Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225

Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3) Central Nervous System, H336

2.2 GHS Label elements, including precautionary statements



Pictograms

GHS02 GHS07

Signal word: **DANGER**

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statement(s)

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Repeated exposure may cause skin dryness or cracking.

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by wt. Range	CLASSIFICATION
Isopropyl Acetate EC#203-561-1 Index-No. 607-024-00-6 Reg.-No. 01-2119537214-46-XXXX	108-21-4	99.5 min.	Flammable liquids (Category 2), H225 Eye irritation (Category 2A), H319 STOT-SE (Category 3), Central Nervous System, H336
Water	7732-18-5 EC-No.231-791-2	0.2%	Not a hazardous substance or mixture.

3.2 MIXTURE: Not applicable

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION> ISOPROPYL ACETATE

****FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.**

EYES (SPLASH)> ISOPROPYL ACETATE

****FIRST AID- Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flushing. Get medical attention immediately.**

SKIN (SPLASH)> ISOPROPYL ACETATE

****FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts or**

water until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn after the initial flush. Get medical attention if irritation develops and persists.

INGESTION> ISOPROPYL ACETATE

****FIRST AID- Do not induce vomiting unless directed by a physician. Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention immediately. Treat symptomatically**

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Skin: May cause skin irritation. Symptoms of exposure may include: Drying, cracking or inflammation of skin.

Eyes: Exposure to vapors and liquid may cause eye irritation. Symptoms of exposure may include: Eye irritation, burning sensation, pain, watering, and /or change of vision.

Inhalation: May cause respiratory tract irritation. Symptoms of exposure may include: Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty. Nausea, headache and/or dizziness.

Ingestion: Essentially nontoxic. Symptoms of exposure may include: Central nervous system depression with nausea, headache and mental sluggishness.

Chronic Effects:

Significant exposure to this chemical may adversely affect people with acute or chronic disease of the Respiratory tract, Skin, Eyes and Central Nervous System.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Specific details on antidote: No recommendation given.

5. FIRE FIGHTING MEASURES

Flash Point: 4°C (39°F) TCC

LEL %: 1.8 (V)

Auto-ignition temp: 460°C (860°F)

UEL %: 8 (V)

UNIFORM FIRE CODE: Flammable Liquid Class IB

5.1 SUITABLE EXTINGUISHING MEDIA: DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR ALCOHOL-RESISTANT FOAM. FOR LARGER FIRES, USE WATER SPRAY, FOG OR ALCOHOL-RESISTANT FOAM. ALCOHOL FOAM

Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

FIRE AND EXPLOSION HAZARD. DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. VAPOR-AIR MIXTURES ARE EXPLOSIVE ABOVE FLASH POINT.

Keep containers tightly closed. Flammable liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Liquid floats on water.

CONDITIONS OF FLAMMABILITY: Flammable in the presence of a source of ignition when the temperature is above the flash point.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS: Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind. Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Cool containers with water-fog from as far a distance as possible. Wear NIOSH approved self-contained breathing apparatus for confined spaces. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Extremely Flammable Liquid; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations. Vapors can accumulate in low areas.

6.2 ENVIRONMENTAL PRECAUTIONS:

Keep out of drains, water sources, drains and sewers. Do not flush into surface water or sanitary sewer system

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Methods for cleanup and containment:

Use explosion proof equipment. Shut off valves, contain spill, for small spills add non-flammable absorbent in spill area. For large spills use foam on spill to

minimize vapors clean up by vacuuming then using non-flammable absorbent.

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

OCCUPATIONAL SPILL: Shut off ignition sources. Do not touch spilled material. Stop leak if you can do it without risk. Use water spray to reduce vapors. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For large spills, dike far ahead of spill for later disposal. No smoking, flames, or flares in spill area! Keep unnecessary people away; Isolate hazard area and deny entry.

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: This material presents a fire hazard. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid prolonged or repeated contact with skin. Avoid contact with clothing. Do not take internally. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers. Keep away from heat, sparks and flame. Keep container tightly closed and upright to prevent leakage. Use only with adequate ventilation. Wash thoroughly after handling. In case of small spill, absorb and flush with large volumes of water immediately.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

STATIC HAZARD: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not be sufficient. For more information refer to OSHA Standard 29CFR 1910.106 “Flammable and Combustible Liquids” and National Fire Protection Association (NFPA 77) “Recommended Practice on Static Electricity”.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Recommended storage temperature: 15 - 25°C. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage.

Do not contact with oxidizing materials, mineral acids, and chloroform. Keep containers closed when not in use. Do not take internally.

Suitable material stainless steel, mild steel

Unsuitable material Attacks some forms of plastic and rubber

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Isopropyl Acetate	108-21-4 EC#203-561-1 Index-No. 607-024-00-6 Reg.-No. 01-2119537214-46-XXXX	99.5 min.	100ppm TLV (ACGIH) 200ppm STEL (ACGIH) 250ppm TWA (OSHA) 1800ppm IDLH (NIOSH)
Water	7732-18-5 EC-No.231-791-2	0.2%	N.E.

Key: (PEL) = Permissible Exposure Limit OSHA
(TLV) = Threshold Limit Value OSHA & ACGIH
(STEL) = Short Term Exposure Limit ACGIH
(WEEL) = USA. Workplace Environmental Exposure Levels
(TWA) = Time Weighted Average
CAS = Chemical Abstracts Registry Number
IDLH = Immediate Danger to Life and Health
N.E. =None Established

8.2 EXPOSURE CONTROLS

GENERAL CONSIDERATIONS: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA): For known vapor concentrations use a NIOSH/MSHA air purifying respirator with full face-piece and organic vapor cartridge for exposures >1 <10 times ACGIH TLV. For exposures greater than 10 times ACGIH TLV or for unknown vapor concentrations use a NIOSH/MHSA approved positive pressure self contained breathing apparatus with full face-piece.

BODY CLOTHING: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION: Employee must wear appropriate protective gloves to prevent contact with this substance.

Splash contact Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 120 min

HYGIENE: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION: Use safety eyewear with splash-guards or face shield. Contact lenses should not be worn.

Emergency shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Isopropyl Acetate 108-21-4

Appearance----->	Clear liquid
Color----->	Colorless
Odor----->	Strong Fruity odor
Odor Threshold----->	No data Available
Odor----->	Fruity
pH----->	No data Available
Molecular Weight----->	102.13
Melting/Freezing Point----->	-73°C (-99°F)
Boiling Point ----->	85 - 91 °C (185 - 196 °F)
Specific Gravity----->	0.8718@25°C
Vapor Pressure----->	47mmHg@20°C
Vapor Density (air=1)----->	3.53

Water Solubility----- > 2.9%
Partition Coefficient N-Octanol/Water----- > Log Pow: 1.28 @20°C (68°F)
Evaporation Rate (Butyl Acetate=1)----- > 5
Flash Point----- >4°C (39°F) TCC
Upper Flammability Limit----- > 8% (V)
Lower Flammability Limit----- > 1.8% (V)
Auto-Ignition Temperature----- > 460°C(860°F)
Decomposition Temperature----- > No data Available
Viscosity----- > No data Available
Explosive Properties----- > No data Available

Oxidizing Properties-----> No data Available

9.2 OTHER INFORMATION-----> No data Available

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: No data available.

10.2 CHEMICAL STABILITY: Unstable () Stable (X)

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: Vapors may form explosive mixtures with air.

POLYMERIZATION: May occur () Will not occur (X)

10.4 CONDITIONS TO AVOID: Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

10.5 INCOMPATIBLE MATERIALS:

ACIDS: Incompatible.

ACIDS ANHYDRIDES: Incompatible.

ALUMINUM: Dissolution is exothermic.

BARIUM PERCHLORATE: Formation of explosive compound.

2-BUTANONE (METHYL ETHYL KETONE): Accelerates the per-oxidation.

CHLOROSULFONIC ACID: Incompatible

CHROMIUM TRIOXIDE (GRANULAR): Ignition.

COATINGS: May be attacked.

DIOXYGENYL TETRAFLUOROBORATE: Ignition at ambient temperatures.

HALOGENS: Incompatible.

HYDROGEN + PALLADIUM (PARTICLES): Ignition on exposure to air.

HYDROGEN PEROXIDE: Formation of explosive compound.

KETONES: Markedly increases the possibility of peroxidation.

NITROFORM (TRINITROMETHANE): Dissolves liberating heat and possibly exploding.

OLEUM: Temperature and pressure increase in closed container.

OXIDIZERS (STRONG): Fire and explosion hazard.

OXYGEN (GAS): Auto-oxidation, on exposure to light, results in formation of ketones and potentially explosive hydrogen peroxide.

PERCHLORIC ACID: Dangerous interaction.

PHOSGENE: In the presence of iron salts, may explode.

PLASTICS: May be attacked.

POTASSIUM TERT-BUTOXIDE: Ignition.

RUBBER: May be attacked.

SODIUM DICHROMATE + SULFURIC ACID: Exothermic reaction with possible incandescence.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, Smoke, Carbon Monoxide, Aldehydes and other decomposition products where combustion is not complete.

11. TOXICOLOGICAL INFORMATION

ACUTE HEALTH EFFECTS:

Primary Routes of Exposure: Inhalation, Ingestion, skin and eye contact.

SKIN: May cause skin irritation. Symptoms of exposure may include: Drying, cracking or inflammation of skin.

EYES: Exposure to vapors and liquid may cause eye irritation. Symptoms of exposure may include: Eye irritation, burning sensation, pain, watering, and /or change of vision.

INHALATION: May cause respiratory tract irritation. Symptoms of exposure may include: Nasal discharge, hoarseness, coughing, chest pain and breathing difficulty. Nausea, headache and/or dizziness.

INGESTION: Essentially non toxic. Symptoms of exposure may include: Central nervous system depression with nausea, headache and mental sluggishness.

CHRONIC EFFECTS:

Significant exposure to this chemical may adversely affect people with acute or chronic disease of the Respiratory tract, Skin, Eyes and Central Nervous System.

ACUTE TOXICITY:

The effects of overexposure shown in Section III are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50 (Rat)	Skin LD50 (Rabbit)	Inhalation LC50	
Isopropyl Acetate	6750mg/kg	>200000mg/kg	50600ppm/8hr	

SKIN CORROSION/IRRITATION: No data available.

SERIOUS EYE DAMAGE/EYE IRRITATION: No data available.

RESPIRATORY OR SKIN SENSITIZATION: No data available

MUTAGENICITY: Isopropyl Acetate was not mutagenic in vitro (AmesTest). No in vivo information

CARCINOGEN STATUS:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE/DEVELOPMENTAL EFFECTS: No data available

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): May cause drowsiness or dizziness.

Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD:

ADDITIONAL DATA: Repeated Exposure: Isopropyl Acetate was only faintly narcotic to mice exposed to 200 mg/l via inhalation for 4 hours per day, 5 days per week, for 4 weeks. No other effects were noted.

RTECS# AI4930000

12. ECOLOGICAL INFORMATION

Isopropyl Acetate exhibits low acute toxicity to aquatic organisms.

12.1 AQUATIC TOXICITY (Acute):

Toxicity to Fish;

LC50 (Leuciscus idus melanotus) - 265ppm – 48 h

Toxicity to daphnia and other invertebrates:

EC50 Crustacean (Daphnia magna) - 1260 to 4150ppm - 24 h

EC50 Crustacean (Artemia salina) - 110ppm – 48 h

Toxicity to algae:

Algae (Scenedesmus quadricauda) - Toxicity Threshold - 165ppm – 8 day

Algae (Microcystis aeruginosa) - TT - 1400ppm – 8 day

Toxicity to microorganisms:

Protozoa (Chilomonas paramecium) TT - 1378ppm – 48 h

Protozoa (Entosiphon sulcatum) - TT - 460ppm – 72 h

Protozoa (Uronema parduzci) - TT - 1602ppm

Bacteria (Pseudomonas putida) - TT - 190ppm – 16 h

12.2 PERSISTANCE AND DEGRADABILITY: Readily Biodegradable

The ratio BOD5/COD ranged from 0.13 to 0.61 in several tests. The volatilization half-life was about 6.1 hours from a model river. Photodegradation in air via indirect photolysis was estimated to be 50% after 5 days.

12.3 BIOACCUMULATIVE POTENTIAL: The calculated value of the log n-octanol/water partition coefficient is 1.03. This indicates low potential to bioaccumulate.

12.4 MOBILITY IN SOIL: No data available.

12.5 RESULTS OF PBT AND vPvB:

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 OTHER ADVERSE EFFECTS: No data available.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID number is the appropriate spent solvent code D001.

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

14. TRANSPORT INFORMATION

Land Transport (DOT)

- 14.1 USDOT ID Number-----> UN1220
- 14.2 USDOT Shipping Name-----> Isopropyl Acetate
- 14.3 USDOT Hazard Classification-----> 3 (Flammable Liquid)
USDOT Label Codes-----> 3
- 14.4 USDOT Package Code-----> II
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> None
Emergency Response Guide (ERG)> 129

Sea Transport (IMDG)

- 14.1 ID Number-----> UN1220
- 14.2 Proper shipping name-----> ISOPROPYL ACETATE
- 14.3 Hazard Classification-----> 3 (Flammable Liquid)
Label Codes-----> 3
- 14.4 Package Code-----> II
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> Yes
EMS-Number-----> F-E, S-D

Air Transport (IATA)

- 14.1 ID Number-----> UN1220
- 14.2 Proper shipping name-----> Isopropyl Acetate
- 14.3 Hazard Classification-----> 3 (Flammable Liquid)
Label Codes-----> 3
- 14.4 Package Code-----> II
- 14.5 Environmental hazard-----> None
- 14.6 Special precautions for user-----> None
Packing instruction (cargo aircraft): 364
Packing instruction (passenger aircraft): 353

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Product name: ISOPROPYL ACETATE

Pollution category: Z

Ship type: 3

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Not Listed

SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard, Fire Hazard.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed

SECTION 101(14) Reportable Quantity: None

RCRA (Resource Conservation and Recovery Act.)

40 CFR 261.33 Hazardous Waste Number: Appropriate Spent Solvent Number D001.

Massachusetts Right to Know Components

Isopropyl acetate CAS-No.108-21-4

Pennsylvania Right to Know Components

Isopropyl acetate CAS-No.108-21-4

New Jersey Right to Know Components

Isopropyl acetate CAS-No.108-21-4

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)

Isopropyl acetate CAS-No.108-21-4 is listed on the TSCA Inventory.

International Inventories:

<u>Country or Region</u>	<u>Inventory Name</u>	<u>On inventory yes/no</u>
<u>Australia</u>	Australian Inventory of Chemical Substances (AICS)	Yes
<u>Canada</u>	Domestic Substances List (DSL)	Yes
<u>Canada</u>	Non-Domestic Substances List (NDSL)	No
<u>China</u>	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<u>Europe</u>	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
<u>Europe</u>	European List of Notified Chemical Substances (ELINCS)	No

<u>Japan</u>	Inventory of Existing and New Chemical Substances (ENCS)	Yes
<u>Japan</u>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<u>Korea</u>	Existing Chemicals List (ECL)	Yes
<u>Mexico</u>	National Inventory of Chemical Substances (INSQ)	Yes
<u>New Zealand</u>	New Zealand Inventory	Yes
<u>Philippines</u>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
<u>Switzerland</u>	Inventory of Notified New Substances (CHINV)	Yes
<u>Taiwan</u>	National Existing Chemical Inventory (NECI)	Yes
<u>United States & Puerto Rico</u>	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:

4-Extreme

3-High

2-Moderate

1-Slight

0-Insignificant

NFPA RATINGS (SCALE 0-4): Health=2 Fire=3 Reactivity=0
HMIS RATINGS (SCALE 0-4): Health=2 Fire=3 Reactivity=0 PPE=G

Hazard statement(s) from Section 2 and 3:

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Date of preparation-----> July 19, 2007

Revision Number-----> 1.6

Revision Content-----> Updated Sections: 3, 4, 5, 8, 11 and 15

Revision Date-----> April 11, 2019

Prepared by-----> T.G. Fenstermaker Jr.

Acronyms:

ACGIH	-	American Conference of Governmental Industrial Hygienists
AIHA	-	American Industrial Hygiene Association
ANSI	-	American Nation Standards Institute
API	-	American Petroleum Institute
CERCLA	-	Comprehensive Emergency Response, Compensation, and Liability Act
DOT	-	U.S. Department of Transportation
EC-50	-	Effective Concentration
EPA	-	U.S. Environmental Protection Agency
HMIS	-	Hazardous Materials Information System
IARC	-	International Agency For Research On Cancer
LD-50	-	Lethal Dose

MAK	-	Germany Maximum Concentration Values
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System

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